Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for charging at least one battery, comprising ~~the steps of~~:

~~(a)~~ determining a status of at least one parameter for the at least one battery, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(b)~~ determining ~~that~~ whether the at least one battery is to be charged during a peak usage time period or an off-peak usage time period; and

~~(c)~~ responsive to a determination that the at least one battery is to be charged during the peak usage time period, determining a priority rating for the at least one battery based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating.

2. (Original) The method of claim 1, wherein the at least one parameter comprises a current charge level for the at least one battery.

3. (Original) The method of claim 1, wherein the at least one parameter comprises a time to charge the at least one battery to the desired charge level at a nominal charge rate for the at least one battery.

4. (Original) The method of claim 1, wherein the at least one parameter comprises one or more of the group consisting of:

an ID or serial number for the at least one battery;

a nominal charge rate for the at least one battery;

a type of device to be powered by the at least one battery; and

a type of user to use a device powered by the at least one battery.

5. (Currently Amended) The method of claim 1, wherein ~~the~~ determining ~~step (a)~~ a status of at least one parameter for the at least one battery comprises:

~~(a1)~~ determining a number of a plurality of batteries to be charged; and

~~(a2)~~ determining the status of the at least one parameter for each of the plurality of batteries.

6. (Cancelled)

7. (Currently Amended) The method of claim ~~6~~ 5, wherein ~~the~~ determining ~~step (c)~~ a priority rating for the at least one battery comprises:

~~(c1)~~ calculating a peak charge schedule for the plurality of batteries, if the plurality of batteries are to be charged during the peak usage time period; and

~~(c2)~~ calculating an off-peak charge schedule for the plurality of batteries, if the plurality of batteries are to be charged during the off-peak usage time period.

8. (Currently Amended) The method of claim 7, wherein for each of the plurality of batteries, ~~the~~ calculating a peak charge schedule ~~step (c1)~~ comprises:

~~(c1i)~~ determining a current charge level for the battery;

~~(c1ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery;

~~(e1iii)~~ determining a priority rating for the battery based at least upon the current charge level of the battery and the time to charge the battery to the desired charge level, wherein the battery has a high priority rating if the current charge level is close to the desired charge level; and

~~(e1iv)~~ setting a charge rate for the battery based upon the priority rating determined for the battery.

9. (Currently Amended) The method of claim 7, wherein for each of the plurality of batteries, ~~the~~ calculating an off-peak charge schedule ~~step (e2)~~ comprises:

~~(e2i)~~ determining a current charge level for the battery;

~~(e2ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery;

~~(e2iii)~~ determining a time available for charging the battery;

~~(e2iv)~~ adjusting the time to charge the battery to the desired charge level based upon the time available for charging the battery; and

~~(e2v)~~ setting a charge rate for the battery based at least on the adjusted time to charge the battery to the desired charge level and the current charge level of the battery.

10. (Currently Amended) The method of claim 7, further comprising:

~~(d)~~ charging the plurality of batteries according to the peak or off-peak charge schedule.

11. (Currently Amended) The method of claim 7, wherein for each of the plurality of batteries, the method further comprises:

~~(d)~~ comparing an overcharge accumulator value for the battery with a maximum time

limit value;

~~(e)~~ comparing a charge rate for the battery in the peak or off-peak charge schedule with a nominal charge rate for the battery, if the overcharge accumulator value is less than the maximum time limit value;

~~(f)~~ incrementing the overcharge accumulator value if the charge rate for the battery in the schedule is higher than the nominal charge rate for the battery, if the overcharge accumulator value for the battery is less than the maximum time limit value;

~~(g)~~ decrementing the overcharge accumulator value if the charge rate for the battery in the schedule is lower than the nominal charge rate for the battery, if the overcharge accumulator value for the battery is less than the maximum time limit value;

~~(h)~~ setting the charge rate for the battery to the charge rate in the schedule, if the overcharge accumulator value for the battery is less than the maximum time limit value; and

~~(i)~~ setting the charge rate for the battery to the nominal charge rate for the battery, or to a charge rate lower than the nominal charge rate, if the overcharge accumulator value for the battery equals or exceeds the maximum time limit value.

12. (Currently Amended) A method for charging a plurality of batteries, comprising ~~the steps of~~:

~~(a)~~ determining a status of at least one parameter for each of the plurality of batteries, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(b)~~ determining if the plurality of batteries are to be charged during a peak usage time period or an off-peak usage time period;

~~(c)~~ calculating a peak charge schedule, if the plurality of batteries are to be charged during the peak usage time period including, ~~comprising~~:

~~(e1)~~ determining a priority rating for each of the plurality of batteries based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating, and

~~(e2)~~ setting a charge rate for each of the plurality of batteries based upon the priority rating for each of the plurality of batteries; and

~~(d)~~ calculating an off-peak charge schedule, if the plurality of batteries are to be charged during the off-peak usage time period including, ~~comprising:~~

~~(d1)~~ setting the charge rate for each of the plurality of batteries based at least upon the at least one parameter and a time available for charging the battery.

13. (Currently Amended) The method of claim 12, wherein for each of the plurality of batteries, ~~the~~ determining ~~step (e1)~~ a priority rating for each of the plurality of batteries comprises:

~~(e1i)~~ determining a current charge level for the battery;

~~(e1ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery; and

~~(e1iii)~~ determining the priority rating for the battery based at least upon the current charge level of the battery and the time to charge the battery to the desired charge level, wherein the battery has a high priority rating if the current charge level is close to the desired charge level.

14. (Currently Amended) The method of claim 12, wherein for each of the plurality of batteries, ~~the~~ setting ~~step (d1)~~ the charge rate for each of the plurality of batteries comprises:

~~(d1i)~~ determining a current charge level for the battery;

~~(d1ii)~~ determining a time to charge the battery to the desired charge level at a nominal

charge rate for the battery;

~~(d1iii)~~ determining the time available for charging the battery;

~~(d1iv)~~ adjusting the time to charge the battery to the desired charge level based upon the time available for charging the battery; and

~~(d1v)~~ setting the charge rate for the battery based at least on the adjusted time to charge the battery to the desired charge level and the current charge level of the battery.

15. (Currently Amended) A method for compensating for overcharging of at least one battery, comprising ~~the steps of~~:

~~(a)~~ calculating a charge rate for the at least one battery;

~~(b)~~ comparing an overcharge accumulator value for the at least one battery with a maximum time limit value;

~~(c)~~ comparing the calculated charge rate with a nominal charge rate for the at least one battery, if the overcharge accumulator value is less than the maximum time limit value;

~~(d)~~ incrementing the overcharge accumulator value if the calculated charge rate is higher than the nominal charge rate, if the overcharge accumulator value is less than the maximum time limit value;

~~(e)~~ decrementing the overcharge accumulator value if the calculated charge rate is lower than the nominal charge rate, if the overcharge accumulator value is less than the maximum time limit value;

~~(f)~~ setting the charge rate for the at least one battery to the calculated charge rate, if the overcharge accumulator value is less than the maximum time limit value; and

~~(g)~~ setting the charge rate for the at least one battery to the nominal charge rate, or to a charge rate lower than the nominal charge rate, if the overcharge accumulator value equals or

exceeds the maximum time limit value.

16. (Currently Amended) The method of claim 15, wherein ~~the~~ calculating ~~step (a)~~ a charge rate for the at least one battery comprises:

~~(a1)~~ determining a status of at least one parameter for the at least one battery, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(a2)~~ determining if the at least one battery is to be charged during a peak usage time period or an off-peak usage time period;

~~(a3)~~ calculating a peak charge schedule, if the at least one battery is to be charged during the peak usage time period including, ~~comprising:~~

~~(a3i)~~ determining a priority rating for the at least one battery based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating, and

~~(a3ii)~~ setting the calculated charge rate for the at least one battery based upon the priority rating for the at least one battery; and

~~(a4)~~ calculating an off-peak charge schedule, if the at least one battery is to be charged during the off-peak, usage time period including, ~~comprising:~~

~~(a4i)~~ setting the calculated charge rate for the at least one battery based upon the at least one parameter and a time available for charging the at least one battery.

17. (Currently Amended) A computer readable medium with program instructions tangibly stored thereon for charging at least one battery, comprising the instructions for:

~~(a)~~ determining a status of at least one parameter for the at least one battery, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(b)~~ determining ~~that~~ whether the at least one battery is to be charged during a peak usage time period or an off-peak usage time period; and

~~(c)~~ responsive to a determination that the at least one battery is to be charged during the peak usage time period, determining a priority rating for the at least one battery based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating.

18. (Original) The medium of claim 17, wherein the at least one parameter comprises a current charge level for the at least one battery.

19. (Original) The medium of claim 17, wherein the at least one parameter comprises a time to charge the at least one battery to the desired charge level at a nominal charge rate for the at least one battery.

20. (Original) The medium of claim 17, wherein the at least one parameter comprises one or more of the group consisting of:

an ID or serial number for the at least one battery;

a nominal charge rate for the at least one battery;

a type of device to be powered by the at least one battery; and

a type of user to use a device powered by the at least one battery.

21. (Currently Amended) The medium of claim 17, wherein the instructions for determining ~~instruction (a)~~ a status of at least one parameter for the at least one battery comprises instructions for:

~~(a1)~~ determining a number of a plurality of batteries to be charged; and

~~(a2)~~ determining the status of the at least one parameter for each of the plurality of batteries.

22. (Cancelled)

23. (Currently Amended) The medium of claim ~~22~~ 21, wherein the instructions for determining ~~instruction (c)~~ a priority rating for the at least one battery comprises instructions for:

~~(c1)~~ calculating a peak charge schedule for the plurality of batteries, if the plurality of batteries are to be charged during the peak usage time period; and

~~(c2)~~ calculating an off-peak charge schedule for the plurality of batteries, if the plurality of batteries are to be charged during the off-peak usage time period.

24. (Currently Amended) The medium of claim 23, wherein for each of the plurality of batteries, the instructions for calculating a peak charge schedule ~~instruction (c1)~~ comprises instructions for:

~~(c1i)~~ determining a current charge level for the battery;

~~(c1ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery;

~~(c1iii)~~ determining a priority rating for the battery based at least upon the current charge level of the battery and the time to charge the battery to the desired charge level, wherein the battery has a high priority rating if the current charge level is close to the desired charge level; and

~~(c1iv)~~ setting a charge rate for the battery based upon the priority rating.

25. (Currently Amended) The medium of claim 23, wherein for each of the plurality of batteries, the instructions for calculating an off-peak charge schedule ~~instruction (e2)~~ comprises instructions for:

~~(e2i)~~ determining a current charge level for the battery;

~~(e2ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery;

~~(e2iii)~~ determining a time available for charging the battery;

~~(e2iv)~~ adjusting the time to charge the battery to the desired charge level based upon the time available for charging the battery; and

~~(e2v)~~ setting a charge rate for the battery based at least on the adjusted time to charge the battery to the desired charge level and the current charge level of the battery.

26. (Currently Amended) The medium of claim 23, further comprising instructions for:

~~(d)~~ charging the plurality of batteries according to the peak or off-peak charge schedule.

27. (Currently Amended) The medium of claim 23, wherein for each of the plurality of batteries, the instructions further comprises instructions for:

~~(d)~~ comparing an overcharge accumulator value for the battery with a maximum time limit value;

~~(e)~~ comparing a charge rate for the battery in the peak or off-peak charge schedule with a nominal charge rate for the battery, if the overcharge accumulator value is less than the maximum time limit value;

~~(f)~~ incrementing the overcharge accumulator value if the charge rate for the battery in the

schedule is higher than the nominal charge rate for the battery, if the overcharge accumulator value for the battery is less than the maximum time limit value;

~~(g)~~ decrementing the overcharge accumulator value if the charge rate for the battery in the schedule is lower than the nominal charge rate for the battery, if the overcharge accumulator value for the battery is less than the maximum time limit value;

~~(h)~~ setting the charge rate for the battery to the charge rate in the schedule, if the overcharge accumulator value for the battery is less than the maximum time limit value; and

~~(i)~~ setting the charge rate for the battery to the nominal charge rate for the battery, or to a charge rate lower than the nominal charge rate, if the overcharge accumulator value for the battery equals or exceeds the maximum time limit value.

28. (Currently Amended) A computer readable medium with program instructions tangibly stored theron for charging a plurality of batteries, comprising the instructions for:

~~(a)~~ determining a status of at least one parameter for each of the plurality of batteries, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(b)~~ determining if the plurality of batteries are to be charged during a peak usage time period or an off-peak usage time period;

~~(c)~~ calculating a peak charge schedule, if the plurality of batteries are to be charged during the peak usage time period including, ~~comprising:~~

~~(c1)~~ determining a priority rating for each of the plurality of batteries based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating, and

~~(c2)~~ setting a charge rate for each of the plurality of batteries based upon the priority rating for each of the plurality of batteries; and

~~(d)~~ calculating an off-peak charge schedule, if the plurality of batteries are to be charged during the off-peak usage time period including, ~~comprising:~~

~~(d1)~~ setting the charge rate for each of the plurality of batteries based at least upon the at least one parameter and a time available for charging the battery.

29. (Currently Amended) The medium of claim 28, wherein for each of the plurality of batteries, the instructions for determining ~~instructions (e1) a priority rating for each of the plurality of batteries~~ comprises instructions for:

~~(e1i)~~ determining a current charge level for the battery;

~~(e1ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery; and

~~(e1iii)~~ determining the priority rating for the battery based at least upon the current charge level of the battery and the time to charge the battery to the desired charge level, wherein the battery has a high priority rating if the current charge level is close to the desired charge level.

30. (Currently Amended) The medium of claim 28, wherein for each of the plurality of batteries, the instructions for setting ~~instruction (d1)~~ the charge rate for each of the plurality of batteries comprises instructions for:

~~(d1i)~~ determining a current charge level for the battery;

~~(d1ii)~~ determining a time to charge the battery to the desired charge level at a nominal charge rate for the battery;

~~(d1iii)~~ determining the time available for charging the battery;

~~(d1iv)~~ adjusting the time to charge the battery to the desired charge level based upon the time available for charging the battery; and

~~(d)v)~~ setting the charge rate for the battery based at least on the adjusted time to charge the battery to the desired charge level and the current charge level of the battery.

31. (Currently Amended) A computer readable medium with program instructions tangibly stored thereon for compensating for overcharging of at least one battery, comprising the instructions for:

~~(a)~~ calculating a charge rate for the at least one battery;

~~(b)~~ comparing an overcharge accumulator value for the at least one battery with a maximum time limit value;

~~(c)~~ comparing the calculated charge rate with a nominal charge rate for the at least one battery, if the overcharge accumulator value is less than the maximum time limit value;

~~(d)~~ incrementing the overcharge accumulator value if the calculated charge rate is higher than the nominal charge rate, if the overcharge accumulator value is less than the maximum time limit value;

~~(e)~~ decrementing the overcharge accumulator value if the calculated charge rate is lower than the nominal charge rate, if the overcharge accumulator value is less than the maximum time limit value;

~~(f)~~ setting the charge rate for the at least one battery to the calculated charge rate, if the overcharge accumulator value is less than the maximum time limit value; and

~~(g)~~ setting the charge rate for the at least one battery to the nominal charge rate, or to a charge rate lower than the nominal charge rate, if the overcharge accumulator value equals or exceeds the maximum time limit value.

32. (Currently Amended) The medium of claim 31, wherein the instructions for calculating

~~instruction (a)~~ a charge rate for the at least one battery comprises instructions for:

~~(a1)~~ determining a status of at least one parameter for the at least one battery, wherein the at least one parameter comprises a closeness to a desired charge level;

~~(a2)~~ determining if the at least one battery is to be charged during a peak usage time period or an off-peak usage time period;

~~(a3)~~ calculating a peak charge schedule, if the at least one battery is to be charged during the peak usage time period including, ~~comprising:~~

~~(a3i)~~ determining a priority rating for the at least one battery based upon the at least one parameter, wherein a battery closer to the desired charge level has a higher priority rating, and

~~(a3ii)~~ setting the calculated charge rate for the at least one battery based upon the priority rating for the at least one battery; and

~~(a4)~~ calculating an off-peak charge schedule, if the at least one battery is to be charged during the off-peak, usage time period including, ~~comprising:~~

(a4i) setting the calculated charge rate for the at least one battery based upon the at least one parameter and a time available for charging the at least one battery.

33. (New) The method of claim 1, wherein:

the peak usage time period corresponds to a time of day during which the at least one battery is to be used to power a device; and

the off-peak usage time period corresponds to a remainder of the day.

34. (New) The medium of claim 17, wherein:

the peak usage time period corresponds to a time of day during which the at least one

battery is to be used to power a device; and

the off-peak usage time period corresponds to a remainder of the day.